



#8/11-2004
Petition

THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Arkady Yampolsky and Masad
Aslan

Art Unit : 3723
Examiner : Lee Wilson

Serial No. : 09/903,052

Filed : July 10, 2001

Title : CLOSED-LOOP CONTROL OF A CHEMICAL MECHANICAL POLISHER

MAIL STOP PETITIONS

Commissioner for Patents
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Alexandria, VA 22313-1450

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PETITION TO WITHDRAW NOTICE OF ABANDONMENT

Under 37 CFR §§1.8(b) and 1.181, applicant hereby petitions to withdraw the Notice of Abandonment mailed July 22, 2004 (copy enclosed). The application was abandoned under 37 CFR §1.135 for failure to respond to the Office Action mailed September 26, 2003.

The undersigned, applicant's attorney of record, first became aware of the abandonment on August 2, 2004, on receipt of the Notice of Abandonment and submits that this petition to withdraw the Notice is being promptly submitted as required by 37 CFR §1.8(b)(1).

The following documents are submitted under 37 CFR §1.8(b)(2) as proof that a Response was timely filed on November 26, 2003:

1. A copy of a Response to Restriction Requirement, including an executed certificate of mailing signed by Carlos A. Brasil on November 26, 2003. The Response states "Enclosed is a check for \$110 for the Petition for One Month Extension of Time fee.";
2. A copy of a Preliminary Amendment, and including an executed certificate of mailing signed by Carlos A. Brasil on November 26, 2003;

CERTIFICATE OF MAILING BY FIRST CLASS MAIL

I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Signature

Nikia M. Mc Nillion

Typed or Printed Name of Person Signing Certificate

Applicant : Arkady Yampolsky and Masad Aslan
Serial No. : 09/903,052
Filed : July 10, 2001
Page : 2 of 2

Attorney's Docket No.: 05542-443001 / 4738-2/CMP

3. A copy of checks dated November 26, 2003, and postcard dated November 26, 2003, that were included with the Response; and

4. A copy of the postcard stamped received by the PTO Mailroom on November 28, 2003.

Applicant submits that the response to the Office Action was timely filed and requests that the Notice of Abandonment be withdrawn.

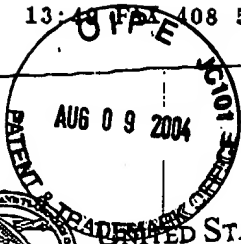
Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: 8/3/04

David J. Goren
David J. Goren
Reg. No. 34,609

Telephone: (650) 839-5070
Facsimile: (650) 839-5071



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/903,052	07/10/2001	Arkadiy Yampolskiy	004738/2/CMP	9389
32588	07/22/2004			
APPLIED MATERIALS, INC. 2881 SCOTT BLVD. M/S 2061 SANTA CLARA, CA 95050				
COMPUTER ENTERED JUL 30 2004				
DATE MAILED: 07/22/2004				
EXAMINER WILSON, LEE D				
ART UNIT 3723		PAPER NUMBER		

Please find below and/or attached an Office communication concerning this application or proceeding.

*database search
filed 11/03*

RTA 8/22
RST response

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TECHNOLOGY CENTER 23700

Notice of Abandonment

Application No.

09/903,052

Examiner

LEE D WILSON

Applicant(s)

YAMPOLSKIY ET AL.

Art Unit

3723

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address -

This application is abandoned in view of:

1. ☒ Applicant's failure to timely file a proper reply to the Office letter mailed on 26 September 2003.
 - (a) ☐ A reply was received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the period for reply (including a total extension of time of _____ month(s)) which expired on _____.
 - (b) ☐ A proposed reply was received on _____, but it does not constitute a proper reply under 37 CFR 1.113 (a) to the final rejection. (A proper reply under 37 CFR 1.113 to a final rejection consists only of: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114).
 - (c) ☐ A reply was received on _____ but it does not constitute a proper reply, or a bona fide attempt at a proper reply, to the non-final rejection. See 37 CFR 1.85(a) and 1.111. (See explanation in box 7 below).
 - (d) ☒ No reply has been received.
2. ☐ Applicant's failure to timely pay the required issue fee and publication fee, if applicable, within the statutory period of three months from the mailing date of the Notice of Allowance (PTOL-85).
 - (a) ☐ The issue fee and publication fee, if applicable, was received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the statutory period for payment of the issue fee (and publication fee) set in the Notice of Allowance (PTOL-85).
 - (b) ☐ The submitted fee of \$_____ is insufficient. A balance of \$_____ is due.
The issue fee required by 37 CFR 1.18 is \$_____. The publication fee, if required by 37 CFR 1.18(d), is \$_____.
 - (c) ☐ The issue fee and publication fee, if applicable, has not been received.
3. ☐ Applicant's failure to timely file corrected drawings as required by, and within the three-month period set in, the Notice of Allowability (PTO-37).
 - (a) ☐ Proposed corrected drawings were received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the period for reply.
 - (b) ☐ No corrected drawings have been received.
4. ☐ The letter of express abandonment which is signed by the attorney or agent of record, the assignee of the entire interest, or all of the applicants.
5. ☐ The letter of express abandonment which is signed by an attorney or agent (acting in a representative capacity under 37 CFR 1.34(a)) upon the filing of a continuing application.
6. ☐ The decision by the Board of Patent Appeals and Interference rendered on _____ and because the period for seeking court review of the decision has expired and there are no allowed claims.
7. ☐ The reason(s) below:



LEE D. WILSON
PRIMARY EXAMINER

Petitions to revive under 37 CFR 1.137(a) or (b), or requests to withdraw the holding of abandonment under 37 CFR 1.181, should be promptly filed to minimize any negative effects on patent term.



DJG
THP

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Attorney's Docket No. 05542-443001		Mailing Date November 26, 2003	For PTO Use Only <i>Do Not Mark in This Area</i> 
Application No. 09/903,052	Filing Date July 10, 2001	Attorney/Secretary Init DJG/THP/cab	
Title of the Invention CLOSED-LOOP CONTROL OF A CHEMICAL MECHANICAL POLISHER			
Applicant Yampolsky et al.			
Client Reference No. 4738-2/CMP			
Enclosures • Response to Restriction Requirement (1 page) • Preliminary Amendment (3 pages) • Return Receipt Postcard (2) • Checks in the amount of \$110 and \$72			

DEC - 5 2003

VPTA

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Yampolsky et al. Art Unit : 3723
Serial No. : 09/903,052 Examiner : Lee D. Wilson
Filed : July 10, 2001
Title : CLOSED-LOOP CONTROL OF A CHEMICAL MECHANICAL POLISHER

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RESPONSE TO RESTRICTION REQUIREMENT

Responsive to the action mailed September 26, 2003, applicant elects the invention of Group I (Claims 1-10) drawn to the embodiment of a method, classified in class 451, subclass 288. The election is made without traverse.

Enclosed is a check for \$110 for the Petition for One Month Extension of Time fee.
Please apply any other appropriate charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: November 26, 2003



Tim H. Pham
Reg. No. 48,589

Telephone: (650) 839-5070
Facsimile: (650) 839-5071

50186436.doc

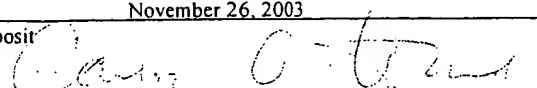
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November 26, 2003

Date of Deposit

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Carlos A. Brasil

Typed or Printed Name of Person Signing Certificate

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Arkady Yampolsky and Masad Aslan Art Unit : 3723
Examiner : Lee D. Wilson
Serial No. : 09/903,052
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Title : CLOSED-LOOP CONTROL OF A CHEMICAL MECHANICAL POLISHER

Commissioner for Patents
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PRELIMINARY AMENDMENT

Prior to examination, please amend the application as indicated on the following pages.

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November 26, 2003

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Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

- AI
1. (Currently Amended) A method of controlling a chemical mechanical polishing system, comprising:
- ~~receiving an inner tolerance, an outer tolerance and a specification tolerance limit~~
 - plurality of tolerance limits;
 - ~~receiving user input selecting one of the inner tolerance and the outer tolerance;~~
 - ~~receiving user input selecting a polishing machine procedure for the selected tolerance;~~
 - polishing a first substrate with the chemical mechanical polishing system;
 - measuring a thickness of at least one layer in the substrate at an in-line metrology station;
 - and
 - ~~if the measured thickness exceeds the selected tolerance, performing the selected~~
 - ~~procedure~~
 - determining which, if any, of the tolerance limits are exceeded by the thickness
 - measured; and
 - if it is determined that any of the tolerance limits are exceed, selecting one of a plurality
 - of procedures of the chemical mechanical polishing system, the selection being based on a result
 - of the determining step.
2. (Currently Amended) The method of claim 1, wherein the ~~selected procedure~~plurality of procedures includes adjusting a polishing time of a second substrate from the same cassette as the first substrate.

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3. (Currently Amended) The method of claim 1, wherein the ~~selected procedure~~plurality of procedures includes adjusting a polishing time of a second substrate from a different cassette from the first substrate.

4. (Currently Amended) The method of claim 1, wherein the ~~selected procedure~~plurality of procedures includes displaying a warning message.

5. (Currently Amended) The method of claim 1, wherein the ~~selected procedure includes~~generating plurality of procedures includes designating a gating substrate in the next cassette.

6. (Original) A method of chemical mechanical polishing, comprising:
polishing a first substrate in a lot at a polishing station of a chemical mechanical polishing apparatus that includes an in-line metrology station;
measuring a thickness of at least one layer in the first substrate at the in-line metrology station; and
adjusting a polishing parameter based on the measurement of the first substrate; and
polishing a second substrate at the polishing station with the adjusted polishing parameter.

7. (Original) The method of claim 6, wherein the thickness of the at least one layer is measured while a third substrate is being polished, and the second substrate is polished after the third substrate.

8. (Original) The method of claim 6, wherein the polishing parameter is adjusted if the measured thickness exceeds a tolerance limit.

9. (Original) The method of claim 8, wherein the tolerance limit is entered by a user.

10. (Original) The method of claim 6, wherein the polishing parameter is a polishing time.

11-16. (Cancelled)

17. (New) The method of claim 1, wherein the selection is based on which of the plurality of tolerance limits are exceeded.

18. (New) The method of claim 1, wherein the plurality of tolerance limits includes an inner tolerance limit, and outer tolerance limit, and a specification tolerance limit.

19. (New) The method of claim 1, wherein the first substrate is one of a plurality of wafer types, the method further comprising:
receiving information identifying the wafer type of the first substrate, wherein the selection is based on the wafer type of the first substrate.

20. (New) The method of claim 1, wherein the plurality of wafer types includes a gating wafer type, a monitor wafer type, a regular wafer type, and a user defined wafer type.

21. (New) The method of claim 1, wherein the plurality of procedures include predefined procedures.

22. (New) The method of claim 1, wherein the plurality of procedures include one of immediately stopping polishing and idling, completing polishing of substrates currently loaded in the chemical mechanical polishing system and then idling, completing polishing of substrates in a cassette currently loaded in the chemical mechanical polishing system and then idling, adjusting a polishing time for other substrates in the cassette, adjusting the polishing time of substrates in other cassettes, requesting operator approval prior to adjusting the polishing time,

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requesting operator approval prior to adjusting a polishing procedure, returning the first substrate to the polishing apparatus, designating a gating group, generating a warning message, and generating a status message.

23. (New) A chemical mechanical polishing system, comprising a controller configured to:
receive information specifying a wafer thickness;
determined which, if any of a plurality of tolerance limits are is exceeded by the wafer thickness; and
if any of the tolerance limits are exceeded, selecting a procedure of the system, the selection being based on which of the tolerance limits is exceeded.

24. (New) The system of claim 23, wherein the controller is further configured to:
receive information specifying a wafer type; and
the selection is further based on the wafer type specified.

25. (New) The system of claim 23, wherein the plurality of tolerance limits includes an inner tolerance limit, an outer tolerance limit, and a specification limit.

26. (New) The system of claim 23, wherein the wafer type is one of a gating wafer type, a monitor wafer type, a regular wafer type, and a user defined wafer type.

27. (New) A chemical mechanical polishing system, comprising a controller configured to:
receive information specifying a wafer thickness;
receive information specifying one of a plurality of wafer types;
determine if a tolerance limit is exceeded by the wafer thickness; and

Applicant : Arkady Yampolsky and Masad Aslan
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if the tolerance limit is exceeded, selecting a procedure of the system, the selection being based on the wafer type specified.

28. (New) The system of claim 27, wherein the plurality of wafer types includes a gating wafer type, a monitor wafer type, a regular wafer type, and a user defined wafer type.

29. (New) The system of claim 27, wherein there are more than one tolerance limits and the selection is further based on which tolerance limit is exceeded.

30. (New) The system of claim 29, wherein the tolerance limits include an inner tolerance limit, an outer tolerance limit, and a specification tolerance limit.

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REMARKS

The applicant asks that all claims be examined in view of the above amendments.

Attached is a \$72 check for the excess claims fee. Please apply any other appropriate charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date:

November 26, 2003



Tim H. Pham

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